

CLAIMS

What is claimed is:

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1. A recombinant protein comprising peptides that contain antigenic epitopes from two or more stages in a life cycle of *Plasmodium falciparum*.

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2. The protein of Claim 1, wherein the peptides are selected from the group consisting of SEQ ID NOS:3-25, fragments thereof, combinations thereof, and conservative substitutions thereof.

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3. The protein of Claim 1, comprising the amino acid sequence of SEQ ID NO:2, fragments thereof, or conservative substitutions thereof.

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4. The protein of Claim 1, further comprising a signal peptide, polyhistidine, and a T-cell helper epitope.

5. The protein of Claim 1, wherein the stages are selected from the group consisting of sporozoite stage, liver stage, blood stage and sexual stage.

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6. The protein of Claim 1, encoded by the nucleotide sequence of SEQ ID NO:1, fragments thereof, or conservative substitutions thereof.

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7. A method of enhancing an immune response of a human or animal to *Plasmodium falciparum* comprising administration to the human or animal of an effective amount of a protein composition comprising a recombinant protein in a pharmaceutically acceptable carrier, the recombinant protein comprising peptides that contain antigenic epitopes from two or more stages in a life cycle of *Plasmodium falciparum*.

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8. A protein composition comprising a recombinant protein in a pharmaceutically acceptable carrier, the recombinant protein comprising peptides that contain antigenic epitopes from two or more stages in a life cycle of *Plasmodium falciparum*, wherein the protein composition is immunogenic when administered to a human or to a nonhuman animal.

Sub
A2

9. Antibodies immunoreactive to a recombinant protein comprising peptides that contain antigenic epitopes from two or more stages in a life cycle of *Plasmodium falciparum*.

10. Use of the antibodies of Claim 9 for detection or measurement of peptides derived from two or more stages in the life cycle of *Plasmodium falciparum*.

Cont
Sub
a2

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Add
a3